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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/621,813 | 07/17/2003 | Thomas J. Henderson | SUP 6473 | 1342 |
| 321 | 7590 | 11/04/2005 | EXAMINER | |
| SENNIGER POWERS ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102 | | | THERKORN, ERNEST G | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1723 | |

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/621,813

Applicant(s)

HENDERSON ET AL.

Examiner

Ernest G. Therkorn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on August 29, 2005 & October 7, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-42 and 78-90 is/are pending in the application.
- 4a) Of the above claim(s) 81-90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-42 and 78-80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Newly submitted claims 81-90 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 81-90, drawn to a chromatography stand, classified in class 210, subclass 541.
- II. Claims 27-42 and 78-80, drawn to a chromatography cartridge, classified in class 210, subclass 198.2.

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it could use other cartridges. The subcombination has separate utility such as a filter.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 81-90 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

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Claims 80 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent basis for "tub."

Claims 78-80 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. "a height that is less than a width of the connector portion" is considered to be new matter because the limitation is not disclosed in the instant specification. As stated in the August 2005 revision of the MPEP, "(w)hen the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value." As such, the subject matter of claims 78-80 is considered to be drawn to new matter.

Claims 27-42 and 78-80 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The metes and bounds of "shaped to locate the cartridge in a loaded position" can not be determined. As such, the term is considered to be indefinite.

Claims 27-42 and 78-80 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

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convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. "shaped to locate the cartridge in a loaded position" is considered to be new matter.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-37, 42, and 78-80 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Green (U.S. Patent No. 6,171,486). The claims are considered to read on Green (U.S. Patent No. 6,171,486). However, if a difference exists between the claims and Green (U.S. Patent No. 6,171,486), it would reside in optimizing the elements of Green (U.S. Patent No. 6,171,486). It would have been obvious to optimize the elements of Green (U.S. Patent No. 6,171,486) to enhance separation.

Claims 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (U.S. Patent No. 6,171,486) in view of Schick (U.S. Patent No. 5,651,885) and Horsman (U.S. Patent No. 6,783,673). At best, the claims differ from Green (U.S. Patent No. 6,171,486) in reciting the end cap is heat crimped. Schick (U.S. Patent No.

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5,651,885) (column 6, lines 19-43 and column 9, lines 8-26) discloses crimping presses the column ends against the inner tube. Horsman (U.S. Patent No. 6,783,673) (column 10, lines 23-31) discloses that crimping a chromatography column may be performed with or without heating. It would have been obvious to heat crimp in Green (U.S. Patent No. 6,171,486) because Schick (U.S. Patent No. 5,651,885) (column 6, lines 19-43 and column 9, lines 8-26) discloses crimping presses the column ends against the inner tube and Horsman (U.S. Patent No. 6,783,673) (column 10, lines 23-31) discloses that crimping a chromatography column may be performed with or without heating.

Claims 27-39, 42, and 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (U.S. Patent No. 6,171,486) in view of Snyder (U.S. Patent No. 5,037,544) and "Ansys Diagnostics MetaFlash....Better Flash Cartridges." At best, the claims differ from Green (U.S. Patent No. 6,171,486) in reciting use of a luer fitting. Snyder (U.S. Patent No. 5,037,544) (column 6, lines 18-48) discloses that luer fittings are known in the art as effective chromatography column coupling means that are leak-proof and mechanically secure and permit coupled devices to be readily separated. "Ansys Diagnostics MetaFlash....Better Flash Cartridges" discloses that luer tipped outlets are used to create leak proof chromatography cartridges. It would have been obvious to use luer fittings in Green (U.S. Patent No. 6,171,486) because Snyder (U.S. Patent No. 5,037,544) (column 6, lines 18-48) discloses that luer fittings are known in the art as effective chromatography column coupling means that are leak-proof and mechanically secure and permit coupled devices to be readily separated and "Ansys

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Diagnostics MetaFlash....Better Flash Cartridges” discloses that luer tipped outlets are used to create leak proof chromatography cartridges.

Claims 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (U.S. Patent No. 6,171,486) in view of Snyder (U.S. Patent No. 5,037,544) and “Ansys Diagnostics MetaFlash....Better Flash Cartridges” as applied to claims 27-39, 42, and 78-80 above, and further in view of Schick (U.S. Patent No. 5,651,885) and Horsman (U.S. Patent No. 6,783,673). At best, the claims differ from Green (U.S. Patent No. 6,171,486) in view of Snyder (U.S. Patent No. 5,037,544) and “Ansys Diagnostics MetaFlash....Better Flash Cartridges” in reciting the end cap is heat crimped. Schick (U.S. Patent No. 5,651,885) (column 6, lines 19-43 and column 9, lines 8-26) discloses crimping presses the column ends against the inner tube. Horsman (U.S. Patent No. 6,783,673) (column 10, lines 23-31) discloses that crimping a chromatography column may be performed with or without heating. It would have been obvious to heat crimp in Green (U.S. Patent No. 6,171,486) because Schick (U.S. Patent No. 5,651,885) (column 6, lines 19-43 and column 9, lines 8-26) discloses crimping presses the column ends against the inner tube and Horsman (U.S. Patent No. 6,783,673) (column 10, lines 23-31) discloses that crimping a chromatography column may be performed with or without heating.

Claims 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (U.S. Patent No. 6,171,486) in view of Tuvim (U.S. Patent No. 6,387,256). At best, the claims differ from Green (U.S. Patent No. 6,171,486) in the clarity that the width of the connector is greater than the height. Tuvim (U.S. Patent No. 6,387,256) in

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Figure 3 pictorially shows that it is well known to have the connector to be wider than it is tall. It would have been obvious to have the width of the connector to be greater than the height in Green (U.S. Patent No. 6,171,486) because Tuvim (U.S. Patent No. 6,387,256) in Figure 3 pictorially shows that it is well known to have the connector to be wider than it is tall.

Claims 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claims 27-39, 42, and 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (U.S. Patent No. 6,171,486) in view of Snyder (U.S. Patent No. 5,037,544) and "Ansys Diagnostics MetaFlash....Better Flash Cartridges" as applied to claims 27-39, 42, and 78-80 above, and further in view of Tuvim (U.S. Patent No. 6,387,256). At best, the claims differ from Green (U.S. Patent No. 6,171,486) in view of Snyder (U.S. Patent No. 5,037,544) and "Ansys Diagnostics MetaFlash....Better Flash Cartridges" in the clarity that the width of the connector is greater than the height. Tuvim (U.S. Patent No. 6,387,256) in Figure 3 pictorially shows that it is well known to have the connector to be wider than it is tall. It would have been obvious to have the width of the connector to be greater than the height in Green (U.S. Patent No. 6,171,486) in view of Snyder (U.S. Patent No. 5,037,544) and "Ansys Diagnostics MetaFlash....Better Flash Cartridges" because Tuvim (U.S. Patent No. 6,387,256) in Figure 3 pictorially shows that it is well known to have the connector to be wider than it is tall.

The remarks urge patentability over the rejections based upon Green (U.S. Patent No. 6,171,486) because of the particular stand employed with the cartridge. However, the claims are directed solely to a cartridge elected by applicants' response of

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May 2, 2005 to the restriction requirement of March 30, 2005. As such, the details of Green (U.S. Patent No. 6,171,486)'s stand or applicants' stand would not appear to be relevant.

The remarks urge patentability based upon the connector being shaped to locate the cartridge in a chromatography stand. However, this limitation would appear to preclude few, if any, connectors because a stand could always be made to conform to the connector. For example, Green (U.S. Patent No. 6,171,486) in Figures 2, 7-9, 11, 12, 13a, and 13b show various axial projections. All of them could be received in a recess of a stand. As such, the claims are considered to read on Green (U.S. Patent No. 6,171,486)'s axial projections.

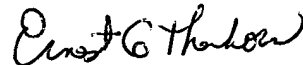
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ernest G. Therkorn
Primary Examiner
Art Unit 1723

EGT
October 31, 2005